

Exploring the Extreme			
2005 Mathematics			
Content Standards			
Hawaii Mathematics			
Grade 1			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	HI	MA.1.MA.1.4.4	Identify measurement tools that could be used to measure length, capacity, and weight
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2005 Mathematics			
Content Standards			
Hawaii Mathematics			
Grade 3			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	HI	MA.3.MA.3.4.5	Select appropriate tools for measuring length, capacity, and weight
Finding the Center of Gravity Using Plumb Lines	HI	MA.3.MA.3.4.5	Select appropriate tools for measuring length, capacity, and weight
Changing the Center of Gravity Using Moment Arms	HI	MA.3.MA.3.4.5	Select appropriate tools for measuring length, capacity, and weight
Changing the Center of Gravity Using Moment Arms	HI	MA.3.MA.3.11.1	Pose questions, collect data using surveys, and organize the data into tables and graphs
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2005 Mathematics			
Content Standards			
Hawaii Mathematics			
Grade 4			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	HI	MA.4.MA.4.4.2	Select and apply appropriate customary and metric units and tools to measure length, perimeter, and area for the degree of accuracy needed
Finding the Center of Gravity Using Rulers	HI	MA.4.MA.4.11.1	Pose questions, collect data using observations and experiments, and organize the data into tables or graphs
Finding the Center of Gravity Using Rulers	HI	MA.4.MA.4.13.1	Propose and justify conclusions/predictions based on data
Finding the Center of Gravity Using Plumb Lines	HI	MA.4.MA.4.4.2	Select and apply appropriate customary and metric units and tools to measure length, perimeter, and area for the degree of accuracy needed

Finding the Center of Gravity Using Plumb Lines	HI	MA.4.MA.4.13.1	Propose and justify conclusions/predictions based on data
Changing the Center of Gravity Using Moment Arms	HI	MA.4.MA.4.4.2	Select and apply appropriate customary and metric units and tools to measure length, perimeter, and area for the degree of accuracy needed
Changing the Center of Gravity Using Moment Arms	HI	MA.4.MA.4.11.1	Pose questions, collect data using observations and experiments, and organize the data into tables or graphs
Changing the Center of Gravity Using Moment Arms	HI	MA.4.MA.4.13.1	Propose and justify conclusions/predictions based on data
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Hawaii Mathematics			
Grade 5			
Activity/Lesson	State	Standards	
Jet Propulsion	HI	MA.5.MA.5.11.1	Collect and display data in circle graphs
Vectoring	HI	MA.5.MA.5.4.2	Select and apply appropriate customary and metric units and tools to measure angles
Vectoring	HI	MA.5.MA.5.4.4	Estimate and measure the size of an angle
Vectoring	HI	MA.5.MA.5.13.1	Design studies to further investigate the conclusion/predictions made based on data
Center of Gravity, Pitch, Yaw	HI	MA.5.MA.5.1.2	Use equivalent forms of whole numbers, fractions, ratios, decimals, and percents to solve problems
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2005 Mathematics			
Content Standards			
Hawaii Mathematics			
Grade 6			
Activity/Lesson	State	Standards	
Vectoring	HI	MA.6.MA.6.4.2	Construct angles with a given degree measure
Vectoring	HI	MA.6.MA.6.10.1	Interpret and solve problem situations involving two different variables
Center of Gravity, Pitch, Yaw	HI	MA.6.MA.6.3.1	Use estimation prior to computing with fractions and decimals and compare the estimation to the actual result
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Hawaii Mathematics			

Grade 7			
Activity/Lesson	State	Standards	
Jet Propulsion	HI	MA.7.MA.7.11.1	Design a study, collect data, and select the appropriate representation (line graph, bar graph, circle graph, histogram, stem and leaf plot, box and whisker plot) to display the data
Jet Propulsion	HI	MA.7.MA.7.13.1	Formulate new questions that arise from previous conclusions or conjectures and plan a new study to answer them
Center of Gravity, Pitch, Yaw	HI	MA.7.MA.7.1.1	Solve problems using fractions, decimals, and percents
Fuel Efficiency	HI	MA.7.MA.7.11.1	Design a study, collect data, and select the appropriate representation (line graph, bar graph, circle graph, histogram, stem and leaf plot, box and whisker plot) to display the data
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2005 Mathematics			
Content Standards			
Hawaii Mathematics			
Grade 8			
Activity/Lesson	State	Standards	
Jet Propulsion	HI	MA.8.MA.8.11.2	Judge the validity of data based on the data collection method
Vectoring	HI	MA.8.MA.8.11.2	Judge the validity of data based on the data collection method